DEVOTED TO TEMPERANCE, SCIENCE, EDUCATION, AND AGRICULTURE.

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MAKING A FIRE.

BY J. F. PACKARD.

Were we to ask our youthful readers how they would make a fire they would reply that they would do so by using a lucifer match. But the lucifer match is of but recent date, previous to which time the people had to resort to various methods in producing a fire. It would be difficult to conceive of men without fire, or the knowledge of the means of producing it. There are stories of a fireless people, but they are apocryphal. Commodore Wilkes, the explorer, states that when he visited Fakaafof or Bowdish Island, in 1841, he found neither places for cooking nor signs of fire, and that the natives evinced alarm when they saw sparks from flint and steel, and smoke from cigars. But that is only negative evidence. Mr. Hale, philologist of the expedition, gives us a vocabulary of the language of these islanders, in which we find that they had a name for fire—*afi*—even if they did not possess it in fact.

The question, How did man obtain his knowledge of fire? is without an answer. Whether he obtained it from the lightning's vivid flash, or from the volcano's fiery upheaval, or from some other source, we have no means of knowing. The Greeks attempted to solve the problem in the fable of Prometheus, who stole fire from heaven, where it was the special possession of the gods.

Fig. 1.—Sandwich Island method.

It matters but little, however, how the first knowledge of fire was obtained. We only know that all races and tribes of men possessed, and possess, the knowledge, although they have various ways of kindling the genial flame. And it is of these various ways that we propose to speak.

Probably the friction of two pieces of wood was the original means of fire-making used by man. The Patagonians employed this method. Two thoroughly dry sticks were selected and the bark removed; one end of one of them rested upon the ground, while the other end rested against the stomach of the performer. Holding the other stick firmly at right angles against the first, fire was produced by vigorously rubbing it up and down its length.

One of the simplest means of producing fire, is by what may be called the stick and groove method (see fig. 1).

A blunt stick is run along back and forth, in a groove of its own making, in a piece of wood lying on the ground. Mr. Darwin, the great naturalist, tells us that this was at one time the common method in the Sandwich Islands, where a very light wood is used for the purpose. This process is also common in some of the South Sea or Polynesian Islands. A practised native can, by this method, produced fire in a few seconds, although Mr. Darwin says that he found it rather hard work, and it took him much longer.

Another, and more widely different process, is what may be called "fire-drilling," represented in its simplest form in fig. 2. This has been found, a little more or less modified, in every quarter of the globe. Captain Cook found it in both Alaska and Australia, and it was in use in Ceylon and Central America. In the rude paintings of the Mexicans we find some striking illustrations of this process. Captain Cook thus describes it, as he found it in Australia:

Fig. 2.—Drilling process.

"They produce fire with great facility, and spread it in a wonderful manner. They take two sticks of dry, soft wood, one eight or nine inches long, the other five; the first they shape into an obtuse point at one end, and pressing it on the other, turn it nimbly between their hands, after moving them up and down, to increase the pressure. By this means they get fire in less than two minutes, and from the smallest spark, they increase it with great speed and dexterity."

An improvement was made on this process, by a contrivance devised on the principle of the common carpenter's brace, with which he works his centre-bit, as shown in fig. 3. This method is still in use among the *gauchos* of the Pampas of Buenos Ayres, and hence is called the "Gaucho method." One of them takes an elastic stick, eighteen inches long, against one end of which he presses firmly with his breast,

Fig. 3.—Gaucho method.

placing the other end, which is pointed, in a hole in a piece of dry wood, and then rapidly twirls it as the carpenter does his brace.

The next advance on this process was to wind a thong or cord around the drill, and then, by pulling the two ends alternately, make it revolve much faster than if rolled between the hands. In some parts of India butter-churns are worked in this way, instead of by the up and down dasher used in other parts of the country. And the Brahmins, although they have simpler and easier processes, still employ this method of producing fire upon sacred occasions.

The Esquimaux, when first brought in contact with the Europeans, employed a method like that last described, in procuring fire. Davis, the navigator, after whom Davis' Straits were named, describes how, in 1586, a Greenlander "beganne to kindle a fire in

Fig. 4.—Esquimaux method.

this manner; he took a piece of a board, wherein was a hole halfe throw; into that hole he put the end of a round stike, like unto a bedde-staffe, dipping the ende thereof in traine-oil, and in fashion of a turner, with a piece of leather, by his violent motion, did speedily produce fire." This was only used in making fire; but when the shaft was pointed with stone, it was used for drilling holes in stone and wood (see fig. 4.) The thong being passed twice around the drill, the upper end is steadied by a mouth-piece of wood, having a piece of the same stone imbedded with a counter-sunk cavity. This, firmly held between the teeth, directs the tool.

The next advance was the mere thong or cord of a bow, by which one hand can be made to do the work of two in driving the spindle. The bow-drill thus formed was used by the ancient Egyptians, and is employed at the present day in our own country by certain artisans. The apparatus lately, and possibly still used for making fire by the Sioux Indians of the North-West, which was constructed on this principle, is shown in fig. 5.

There is another contrivance, used equally

Fig. 5.—Sioux method.

for drilling and fire-making, and which is termed the "Pump-drill." That which is used in Switzerland, and elsewhere for drilling, armed with a steel point, and weighted with a wooden disc is shown in fig. 6.

As the hand brings the cross-piece down, it unwinds the cord, driving the spindle round; as the hand is lifted again, the disc, acting as a fly-wheel, runs on and rewinds the cord, and so on. This apparatus is used in several of the South Sea Islands, only the spindle is armed with a hard stone, instead of a steel point. A similar instrument is also used among the Iroquois Indians of New York (see fig. 7.)

The natives of Terra del Fuego (if we credit Magalhaens, from whom the Straits of Magellan takes their name) made fire from a flint on a piece of iron pyrites, the sparks being received on some kind of tinder. This method was also used by the Slave and Dog Rib Indians, near the Arctic Circle, as also by the Greeks and Romans.

There are certain varieties of cane, or bamboo, which contain large proportions of silica, which is the same substance that, in another form, we call flint. The natives of Sumatra, Borney, and the surrounding islands, produce fire by striking or rubbing together splints of bamboo, the silicious coating of which renders ignition possible. Producing fire by means of what is termed a "sun-glass" is not, by any manner of means, of modern origin Pliny mentions "glass-globes" (practically what we call double convex lenses), with water put in them, which set opposite the sun, so concentrate its rays as to set clothes on fire. The story of Archimedes informs us that the fleet besieging Syracuse was set on fire by

Fig. 6.—Swiss pump-drill.

means of "burning mirrors." In a like manner the vestal virgins lighted the fire it was their duty to keep forever burning in the fane of Vesta, on the banks of the Tiber. If these virgins allowed the eternal fire to go out, they were whipped by the priests, "whose custom it was to drill into a board of auspicious wood till the fire came, which was carried to the temple in a brazier." Inca, who acted as "prophet, priest and king" of Peru, lighted the fires of his nation annually, "on the occasion of the winter solstice," by means of concave mirrors fashioned out of nodules of iron pyrites, which are capable of being polished to the brilliancy of silver or steel. When, however, the sun failed to shine on the festival given in his honor—for the Incas were sun-worshippers,—then the new fire was kindled by means of friction.

In our own country we have in turn lighted our fires with flint, steel and tinder, and the sun-glass and of late with the friction-match. Before the invention of the match, if one's fire went out, it was a common practice to run to the neighbor's to borrow some; and, years ago, during the intermission between the services upon the Sabbath, there might be seen, upon the sunny side of the church, groups of men endeavoring to light their pipes with a sun glass.

Fig. 7.—Iroquois method.

But all of these methods have been supplanted by the friction match. Such is the progress of Science.—*Wide Awake.*

AN UNCONSCIOUS SERMON.

Mr. Harvey was riding slowly along the dusty road, looking in all directions for a stream, or even a house where he might refresh his tired, thirsty horse with a good draught of water. While he was thinking and wondering, he turned an abrupt bend in the road, and saw before him a comfortable looking farm-house, and at the same time a boy ten or twelve years old came out into the road with a small pail, and stood directly before him.

"What do you wish, my boy?" said Mr. Harvey, stopping his horse.

"Would your horse like a drink, sir?" said the boy, respectfully.

"Indeed he would, and I was wondering where I could obtain it."

Mr. Harvey thought little of it, supposing, of course, the boy earned a few pennies in this manner, and therefore he offered him a bit of silver, and was astonished to see him refuse it.

"I would like you to take it," he said, looking earnestly at the child, and observing for the first time that he limped slightly.

"Indeed, sir, I don't want it. It is little enough I can do for myself or any one: I am lame, and my back is bad, sir, and mother says, no matter how small a favor may seem, if it is all we are capable of, God loves it as much as he does a very large favor, and this is the most I can do for others. You see, sir, the distance from Painsville is eight miles to this spot, and I happen to know there is no stream crossing the road that distance, and the houses are all some distance from the road, and so, sir, almost every one passing here from that place is sure to have a thirsty horse."

Mr. Harvey looked down into the gray eyes that were kindling and glowing with the thought of doing good to others, and a moisture gathered in his own, as a moment later he jogged off, pondering deeply upon the quaint little sermon that had been delivered so innnocently and unexpectedly.—*Young Folks' News.*

—As art is not the avoidance of deformity but the study of positive beauty, so Christianity is not a flight from wrath, but a loving development and enjoyment of the more perfect life.—*David Swing.*

Temperance Department.

CIGARETTES.

A very sad death occurred a few weeks since. It was that of the son of a prominent and popular politician, a young man who had just attained to his majority, highly educated, polished, refined, and with all the advantages of wealth to make his life happy and prosperous; a young man, blameless and without fault—save one, that of cigarette-smoking, and it was this one fault that was the primary cause of his death. How many other young men are being enticed to their graves by the same insidious means, it would be somewhat difficult to compute. Formerly, the fashion was confined principally to boys and Cubans; but within the past year or two it has been adopted by all classes, and cigarette-smoking is now the rule rather than the exception. Paper cigars are seen on the streets and the front platforms of cars, and the sale of meerschaum cigarette-holders is rapidly increasing.

These breeders of disease are frequently compounded of refuse tobacco, cut up from old butts of cigars that are picked up in the street, and the curled exquisite, puffing away at his cigarette, would probable throw it from him in disgust were he aware that the tobacco from which it is made is, in all probability, the remains of a cigar that has been between the lips of a man afflicted with a contagious disease. There are instances now on record where sore mouths and sometimes even worse complaints have been introduced in this way.

Another objectionable feature in cigarette fillings is, that they are very often made of Turkish tobacco, into the composition of which, opium enters largely. The effect of the constant inhalation of this narcotic is exceedingly injurious. It acts directly upon both the nerves and the liver, and the constant smoker of so-called Russian or Turkish cigarettes soon becomes pale, jaundiced, and listless, the enervating drug sapping up the life of the smoker, and at the end of a few years leaving him unfit for work and a veritable object of compassion in his inability to free himself from the baneful influence of the subtle poison. Another deleterious effect of cigarette-smoking arises from the paper in which tobacco is wrapped. In the manufacture of this peculiar paper, white lead forms one of the component parts, and this is a deadly poison, which, absorbed into the system, produces blotches on the face, injures the teeth, and makes sores on the lips. These results may be seen frequently in a day's walk—startling warnings against the pernicious custom.

Another strong argument against cigarette-smoking is the fact that the combustion of the cigarette makes it impossible not to inhale large quantities of nicotine—one of the most deadly poisons known to the pharmacopœia.

A physician has detailed some of the symptoms that had lately come under his notice in the case of a young man now under his treatment for serious illness from cigarette-smoking. The patient was a young man of wealth and social position, who had acquired the habit of cigarette-smoking, and had found himself at the end of a year utterly prostrated with a disease, in which excessive nervousness and racking pains in the head and back were the principal features.

Following these symtoms came loss of appetite, and the unfortunate young man soon had a craving for indigestible and highly-spiced food, the eating of which naturally caused derangement of the digestive organs, and another train of ills.

Among the other effects of the poison that comes from the smoking of cigarettes is that it clouds the brain, acting directly upon its tissues as well as the nerves of the body. A *Mercury* reporter conversing recently with a well-known chemist on the subject was told that the growth of cigarette-smoking was doing more to undermine the constitutions of the young men of the country than almost anything else. The gentleman said that he was constantly being called in consultation with eminent physicians, who were endeavoring to discover the cause of what to them appeared mysterious diseases among the young men of the families of some of their most influential patients. In nearly every case it was discovered that the primary cause was cigarette-smoking. "Why, here my own son, Tom," the doctor said, "who should know better, has become so addicted to this practice that I find it almost impossible to break him of it, and a young man who promised to be my worthy successor is growing weaker and weaker before my eyes and I do not seem to possess the power to stop him in his course of nicotinal poisoning. There has been no custom popularized for many years that threatens to do so much harm to the community, male and female—for cigarette-smoking is becoming fashionable with ladies as well as with young men, and you can not too forcibly impress upon your readers the many dangers they are undergoing in pursuing this deleterious habit."

Tobacco is a poison. It is often said: "Tobacco can not be poisonous, since great numbers who smoke and chew during long life do not seem to be injured." To this we reply, many of these same objectors in later years have nervousness, trembling, dyspepsia, heart palpitations, dizziness, and sometimes incurable ailments, which, they are astonished to learn from medical counsel, have been caused chiefly by tobacco. Facts of this sort are frequent. It is true also that persons of heavy plethoric habit and such as live plainly, often perspiring from hard work in the open air, do not so soon nor so severely suffer as others. Tobacco injures native-born Americans sooner and perhaps more than Germans; those of nervous temperament and sedentary life quickest and most fatally.

It is very often amid natural laws as it is under the Divine *moral* government: "Because sentence against an evil work is not executed speedily, therefore the heart of the sons of men is fully set in them to do evil." Nevertheless, it is as *sure as fate* that all these stimulants and narcotics derange the organization, and strike at the life, and reach it sooner or later.

None are better aware of the fact that tobacco is a poison than those who use it, whatever they may pretend to say to the contrary. They often try to disparage the statements concerning the deadly effects of the *extracts* of tobacco, but they do not need to go so far as that. They are often aware that their own use of it hurts them, while they would not dare to swallow the portion they have in their mouths; and no one would be more alarmed than themselves if a loved child should swallow a portion of the weed.

The *Quarterly Journal of Science* instructs us that tobacco belongs to the narcotic and exciting substances which have no food-value. Its use adds no vital force, but abstracts or takes it away. It involves the narcotic paralysis of a portion of the functions whose activity is essential to healthy life. Let it be clearly understood that the temporary stimulus and soothing power of the tobacco are gained by *destroying vital force*, and that the drug contains absolutely nothing of use to the tissues of a healthy body.

Dr. Willard Parker: "It is now many years since my attention was called to the insidious but destructive effects of tobacco on the human system. Cigar and snuff manufacturers have come under my care in hospitals and in private practice, and such persons can not recover soon, and in a healthy manner from cases of injury or fever. They are more apt to die in epidemics, and more prone to apoplexy and paralysis. The same is true also of those who smoke or chew much."

Note also this medical testimony: "The parent whose blood and secretions are saturated with tobacco, and whose brain and nervous system are semi-narcotized by it, must transmit to his child elements of a distempered body and erratic mind; a deranged condition of organic atoms which elevates the animalism of the future being at the expense of the moral and intellectual nature." And here is the law of hereditary transmission, "Visiting the iniquity of the fathers upon the children." Thus innocent ones are often made life-long sufferers by their drinking, smoking, or licentious parents. And it is coming now to be farther known—what is an answer to the apologies of those who indulge their grosser appetities on the ground that such habits do not hurt themselves—that persons inheriting good constitutions may manifest for years comparatively little conscious injury for vices; while children born to them grow up weakly, nervous, with hereditary taints, and sometimes they eventually become epileptics, paralytics, or imbecile? Were it not that mothers are generally of purer life and purer blood than fathers, these deplorable results to offspring would be far more widely manifest than now.

You who are Christian men, can you continue to use this vile and debasing weed, and still feel that you are honestly trying to live a life of purity in the sight of God?—*Union Leaflets, New York.*

CANON FARRAR ON TOTAL ABSTINENCE.

On the 14th of February last Canon Farrar addressed a meeting under the joint auspices of the University and New College Temperance Societies, on the subject of temperance. On rising he said he was glad to accept the invitation of the society and to do something for so sacred and pressing a cause. After dwelling on the way in which the national strength was weakened by this prevailing vice of intemperance he said that there were a great many people, who said that the language of temperance reforms was rash, and exaggerated, and fanatical. Although he had only spoken two or three speeches on the subject, he had laid it down as his own rule, at least, not to use one single, rash, untenable, and above all, one single uncharitable expression. He had always tried to speak as if he were in the presence not of temperance reformers, but of those were speaking at a dinner of licensed victuallers, with spirits as inflammable as their own gas. While never wishing to wound a single sensibility, he would say this, because it was true, and because a whole army of publicans could not refute it, and not even it, that whatever might be thought of the innocence and the harmlessness of the liquor traffic, undoubtedly the result of the traffic, the results would spring directly from it the results which would immediately cease if the traffic were got rid of, were the most appalling, the most ruinous, and most extensive, of all traffics, not even excepting the analogous and most iniquitious opium traffic, in all the world. He wanted no admission from anybody except these two—first of all, that the effects of drunkenness were indescribably awful, and the other, the very simple proposition that drunkenness was caused by drink. During the whole of his life he had been brought up with sober and temperate men, and he cared so little for alcohol that when he was an undergraduate at Cambridge he never had a single bottle of wine in his room. Still he was not a total abstainer, because it was only recently he had been brought home to him the awfulness of the peril, which it was now their duty to encounter, because he sincerely thought that the work which God called the nation to face was to save England before it was too late, from the over whelming peril. He was not there to read them a lecture on the dangers of drunkenness. To do so would be an egregious waste of time. He had seen a boy at school helplessly drunk, in and danger of his life: he had seen two youths soin toxicated that they lay in the streets like senseless logs; some of his schoolfellows had died prematurely from the effects of drink; he had seen peers and clergymen and masters of schools, and even seen professors of universities distinctly the worse of wine. Still he was not going to speak to them in the least to blame drunkenness. If they wanted that done they might perfectly well have asked any of the licensed victuallers of Edinburgh to do it for them. They were constantly informing them that they detested drunkenness, they constantly told that they were adirent temperance, reformers, although somehow or other he feared the ardency of them the way very much like the spirits which they sold. But he was going to speak to them about total absistence for this reason because he believed it was the sole effectual stand which under present circumstances we would nationally make, and the sole effectual protest which in the present crisis we ought to deliver. This conviction was first brought with overwhelming force to his mind from being brought in contact with the lower classes of London and seeing their condition. It was there pressed upon him that the peril could not be exaggerated, and he there saw that if the lower classes were to be saved it could only be by making a stand for temperance. Drunkenness he contended was easily preventible before the temptation had begun, and it was absolutely curable where the temptation had begun—it was preventible and curable by the same means—namly, by total abstinence.

CHILDREN'S MEETING IN CALCUTTA.

(*From* "*The Indian Mirror*," *Jan.* 27, 1873.)

Before five o'clock in the evening of Thursday last, as I stood at a window of the Lily Cottage, I could see, not far from the gate of that beautiful house, the tops of many gay-colored flags mixed up in pleasant confusion, borne by a number of diminutive persons whom I soon recognized as the boys of the Albert School. It was a proud moment of their lives. The little fellows were welcomed at the entrance by Babu Keshub Chunder Sen in person, and then they struck up the tune of the spirited temperance song composed for the occasion. They sang in parties, the grown-up boys in a sweet and gentle bass, and the younger ones in a sharp treble in agreeable contrast to the former. Singing and bearing their banners, they marched into the compound, and stood under the awning ready for them in files, the little ones to the front and their seniors behind them. The ladies looked on from the windows, we were around, some squatting on the grass, some standing, all very much pleased with the manner and matter of the singing, the energy of the youthful choir, and everything about them. The following is the translation of the temperance song:—

"Come all of you, O kind-hearted men, and see how the country is burning by the fire of sorrow.

"The country is in the flames of the fire of wine. Remember God, and now awake.

"Once for all cast off your sleep and be active in the good of your country.

"See how many of the wise and learned are suffering from the poison of wine. How many of them are brutalized by drinking wine. How many hundreds of men are untimely going to the mansion of death by imbibing the poison of wine; here, their families are lamenting bitterly.

"Do not, therefore, remain insensible in sleep any longer."

In the meantime the members of the company were taken away by twos or threes and invested with a piece of red ribbon of which they looked mightily proud. The singing over, oranges and sweets were distributed, to which, we need scarcely say, justice was done. Babu Keshub Chunder then said he was glad to organize on that day the first Band of Hope among Hindus. Then followed a speech which was evidently much liked by the young ones. The party then formed in files on one side of the tank, and bearing aloft their banners, marched out of the compound in the same order as they had come, singing all the way from the Lily Cottage to their school-house in College Square.—*League Journal.*

WITH ME ABSTAIN.

The drunkard can be saved, but it must be by abstinence. In the vast majority of cases nothing else will save him, and in hardly any case has anything else been salvation for the poor creature who has become a slave to strong drink. Now, here comes the power of example. The man was made a drunkard in company. He shall be unmade in company; and as to unmake him he must abstain, we will abstain also. On the one side stands the Devil, and says Come, drink with me; and for that poor wretch a drink means be drunk, and the Devil knows it. On the other side stands the reformer—the Christian. What shall he say? What can he say? There is nothing for him to say, except to take the man's arm and lead him from the temptation and beseech him, "With me abstain."

It is generally granted that the drunkard ought to abstain, but it is as generally forgotten that his abstinence would become a badge and mark of degradation and shame. He sits at your table; the wine is passed; every glass is filled but his. Why not his? He knows that its sparkling beauty and its rich bouquet will be for him poison, madness, death! His only safety is refusal; and in a moment every eye marks the absence of the ruby drops, and the cup that glitters not with the generous wine. Oh! goes the thought around—a drunkard! Poor fellow too weak to check himself. How degraded—how sunken—what a slave! Not so, I say; for, see, I have no ruddy grape-juice in my glass; no mellow ale by my side; no burning spirit in my bowl—and who dares charge me with excess, with a weakness that is only secure in abstinence. I am no drunkard, but I abstain!

Thus do we throw around our fallen but struggling brethren the ægis of our character, our strength, and once again limit the liberty that we possess for the benefit which we can thus gain for ourselves and our fellows.

Is this, then, a sacrifice—a self denial? It may be; but surely we are not of those who will shrink from denial and sacrifice. What had we been had there been no denying of Himself in self-sacrifice by the Son of God?—*L. D. Bevan LL.B., New York.*

—Investigation into the opium-eating habits of residents of the Shenandoah Valley reveals the fact that in the town of Staunton 100 pounds of the drug are sold every week. Many young women and "ladies of the first families" are slaves of the habit. A local newspaper says that public attention was first called to the subject from the fact that a woman sent her horses to be sold that she might use the money to purchase opium. Her agent was unable to sell them, and when he told her so she fell dead. A public anti-opium meeting, has been held, and a petition for a tax on the drug is in circulation. This opium-eating is evidently of long standing, and yet the anti-temperance papers claimed that the bell punch had caused it.—*N. Y. Witness.*

How Sweet Must be the sleep of those who attend temperance meetings, watch their acquaintances take the pledge, and then go deliberately to work to persuade them to break it. Yet there are men who profess to consider this sort of thing legitimate sport.

If there be a Duty with pastors to use such timely occasions as may offer for religious conversations with the members of their congregations, so there may be a duty with those wishing it to offer to the pastors a suitable occasion.—*Congregationalist.*

—In many of the London public-houses unpretending little cards, stating that "all spirits sold here are diluted," are hung up, so as to secure the owners against prosecutions for "adulteration."

Agricultural Department.

ROOT CROPS.

Unfortunately, the American average farmer knows very little of the great value of root crops as food for both man and beast.

Those who have learned to grow them with the greatest economy of land and labor have long since become satisfied of the great profit in their use, and appreciate the benefit they confer on all animals that consume them.

In some parts of the United States, for a quarter of a century, root crops have occupied a very respectable place in farming, and indicate an increasing appreciation of their value. If the keeping and feeding of live stock upon the most economical and successful plan be the object of the farmer, then the importance of root culture is apparent.

The mangels are prominent among different kinds of roots grown for stock. There are several varieties,as the Norwegian giant, long red, yellow globe, and new kinds recently introduced. The mangel is found to yield more tons per acre, and when fed to cows, to cause a greater flow of milk than any of the roots commonly grown as field crops. Well prepared sandy loam is the best land for this crop. The best pulverized and manured lands alone will produce a large reliable crop. Sow in drills twenty-two inches apart, and work well so as to keep down weeds and grass until about the middle of July, when the plants will protect themselves. October is th time to harvest the roots. The yield of mangolds in England is marvelous—seventy-five tons per acre is not an unfrequent, and in New England and New York over fifty tons per acre have been raised.

The carrot crop is also well worth the considerations of farmers, as perhaps, no root is better adopted for a portion of the food for horses, mules, cattle, and hogs. It gives best flavor to milk and butter, and greatly promotes the flow of rich, creamy milk during the winter season.

Turnips, and particularly the rutabagas, stands pre-eminent as stock food; perhaps no other vegetable can be so cheaply produced as the rutabaga turnip, or takes up such little room on the farm. It is sown from the middle to the last of June, after all other crops are planted, and will grow between the rows of corn, and will flourish on lighter soil and with less manure than mangold. Frosts will not damage them, and even if they are not housed until Christmas they will still do for use. The common Dutch or English turnip, also, like the rutabaga, makes excellent food for both man and beast.

Stock fed largely on roots will be more healthy, more easily fattened, and more cheaply fed, and produce more and better milk than if fed exclusively on hay and grain. In England and Europe no farmer ever thinks of keeping stock without root-food, and no farmer ranks his root-crop of less importance that he does his grain crop. Beets, while good for stock food, have become so very popular as a sorghum or sugar-producing vegetable, that throughout Europe it is never fed to stock until the juices are extracted, and nothing but the pulp is left. In the United States "beet sugar" is almost unknown, but the time will come before many years, when the great supply of sugar from home consumption will be be made from the beet-roots that will be grown in all parts of our vast domain.

We cannot to highly recommend our patrons and farmers to experiment more liberally in raising roots for stock food, and by making them one of the rotation crops to add to the richness of their lands, instead of wearing them out each year by the clean cultivation of hoed crops. Now is the time to make the necessary preparations for such crops as above alluded to.—*National Grange.*

COAL ASHES IN THE GARDEN.

It has been long known that coal ashes have the effect of mellowing the soil, particularly clay. A rigid clay may thus be greatly improved in its texture. It has been held that the fertilizing properties of coal ashes are small—repeated analyses have shown this. Yet used as they have been here in the gardens, without other manure, the effect has been such as to lead irresistibly to the conclusion that they develope in some way a considerable amount of fertility. All cannot be accounted for by the mechanical improvement, as in cases where this is not lacking, the effect is still present, and apparently undiminished, if not sometimes increased—in this case acting seemingly as wood ashes do, requiring other (organic) fertility to aid, if full results would be obtained.

I was surprised, early in the season, on seeing unusually thrifty tomatoes and beans, to learn that the only manure used was coal ashes, scattered in the garden to get them out of the way. This was practised for several years and no manure other than this had been used. I was shown another garden today which was treated exactly in the same way, the only dressing being coal ashes. Here the growth seemed all that it could be. I was shown a potato grown here that weighed one pound eleven ounces and a half. It was the Early Vermont, a variety not noted, I believe for its large specimens. But they were large, averaging from half a pound to a pound; no small ones among them, and many exceeding a pound. They were planted fifteen inches apart in the rows, a small potato dropped in each hill. The owner of this garden lays the success to the coal ashes, and says there can hardly be any mistake about it. This is the opinion of others also. My own experience is confirmatory. But the effect I find is not immediate. It is more tardy than with wood ashes, whose potash and soda act promptly.

I would advise by all means that coal ashes, instead of being thrown away, be used in our gardens, removing the coarser parts; also on potato ground, always mixing well with the soil, and as early as the ground will admit and to be repeated yearly, giving thus time for effect upon the soil. I find the best success where the ashes have been applied for several years. The second year is sure to tell, even when thrown upon the ground and left to lie there undisturbed, as I have abundant evidence. But the place for full action is in the soil.

I should have stated that in the second garden mentioned where the ashes were omitted, as was the case with a small space, there was a uniform lack in the growth both in the size of the vines and the tubers. About a quarter of the soil of this garden was composed of ashes. In places where the proportion of ashes was greatest the largest tubers were raised. There is no doubt of the general benefit of coal ashes in a garden, and their decided effect upon the tomato and potato family. They doubtless effect more or less favorably all plants, in the improved texture of the soil, which most of our old cultivated fields need. Add to this their known manurial properties which science has pointed out, little though they be, and there is no reason why coal ashes should not be used on our land, to say nothing of what may seem an occult influence when they are put in union with the fertility of the soil, resulting thus, as appears to me, in an increased growth. I have faith in the discarded coal ashes, and I am using them to advantage.—*Country Gentleman.*

THE VEGETABLE GARDEN.

The success of the garden depends largely upon the quality of the seeds used. Many other conditions, however, are necessary, as well as some degree of knowledge and skill, without which even the best seeds must fail to give the desired results.

The most favorable soil for a garden is a light, rather dry loam, with sufficient admixture of vegetable matter. But situation and nearness to the house are often of more importance in the choice of location than the constitution of the soil. A heavy, wet, clay soil is not suitable for a vegetable garden; yet, if no other ground is available, underground drains, deep working, and a covering of sand and muck or peat will transform even such an unpromising soil into a fair garden. A slight sloping surface, other conditions being equal, is more favorable than a dead level, as it admits of better drainage, and if inclined toward south or southeast all the better. A deep soil is very desirable; but care must be taken not to deepen it too much at a time. Not more than one inch of subsoil which has not been plowed or spaded up before, should be brought to the surface in a season. Whenever possible all the ground intended for garden purposes should be plowed or spaded before winter.

Much disappointment is caused by sowing too early, before the soil is warm and dry enough. Even if the seeds germinate in such cases, little is gained and much risked, as the plants cannot make a vigorous growth before their proper season. And seeds sown later will often give better results than earlier sowings.

Another frequent cause of failure is the too deep covering of the seeds. As a rule, the smaller the seeds the lighter they should be covered. The smallest seeds—such as celery, sweet marjoram, thyme, and other herbs—require hardly any covering at all; and when the ground is fine and not too dry, sowing on the surface and gently pressing down with a board is sufficient. Medium-sized seeds should be covered one-half to one inch; and the largest—such as peas, beans, and corn—two to three inches, and deeper in dry weather.

Most seeds, to give the best results, should be sown thinly, except such kinds as have feeble sprouts—as parsnips, carrots, and beets. These, if sown too thin and the surface becomes baked, cannot break through the crust; while many sprouts together can, and it is but little trouble to thin out the superfluous plants. Cucumbers, melons, squashes, and all plants subject to the ravages of insects should also be sown thickly; and afterward, when the leaves are hard enough to defy the attacks of their enemies, thinned out properly.

Beginners often err in making the rows or drills too close to each other. The taller the plants the more space should be given them; but even the smallest herbs should not be planted so close as to prevent the free use of the hoe or weeder between the rows.

Thorough cultivation and loosening of the soil are among the principal conditions of success in the garden. A good hoeing in dry weather is often better than watering. When the later is resorted to, it must be done thoroughly, and not so as to moisten the surface only. This superficial sprinkling does, generally, more harm than good. It causes the plants to form rootlets near the surface, instead of below. These surface roots are dried and parched by the rays of the sun as soon as the moisture becomes evaporated, and leaves the plants without nourishment.

For the raising of early vegetables a hot-bed is indispensable, and some of the most delicious products of the garden cannot be grown successfully without being started under glass.

As far as the limited space of these pages permits, we trust to have succeeded in giving beginners, in the outlines, at least, the most important principles of growing vegetables, so that, with care and attention and by following the special directions given under their proper heads, good seeds cannot but give satisfactory results.—*Brainard's Seed Catalogue for* 1878.

EVERGREENS.

The Detroit *Tribune*, in a plea for Evergreens" says An evergreen tree must have roots, they are not worth trying to save if they have not good roots; and when ordering from any nursery this should be impressed on the mind of the nurseryman. Then it is indispensable to success that the roots, be kept moist from the very instant they are taken out of the ground till they are planted. They must not get dry for a moment nor be exposed to sun and wind. If these rules are attended to, not one in a hundred will be lost. A rainy day is the best time to move evergreens from the forest; and when taken from a nursery the roots must be instantly immersed in a puddle of clay and water, which may be soaked slow when transplanted.

After evergreens are planted the ground must be kept wet and cool by mulching with chip-dirt or some such substance. The best time to transplant evergreens is just after the buds have begun to swell, and are ready to burst the leaves and until the trees have made an inch or so of new growth. This period varies from the first of May to the middle, and on into June. Large trees are successfuly removed in winter with a frozen ball of earth attached. We moved one a mile in March last, that is ten feet high. It will surely live. A large hole was dug and it was set in just as it stood before removal. A plenty of mellow soil was filled in all round for the young roots to strike into as soon as they begin to grow.

Evergreens always produce a fine effect planted in groups. The hemlock is especially suited to this kind of treatment. However, the taste and the situation of each person will readily direct how to plant. While there are rules and laws which a professional gardener would observe in planting trees anywhere, yet the main thing is to get the trees planted somehow. Plant to break the cold winds and plant where the eye can often see these noble objects. Use common sense and judgment and follow our suggestions about keeping the roots damp.

Petunias for Window Gardens.—A Connecticut lady finds that the Petunia makes a charming window and lawn plant. Writing to *Vicks' Floral Guide*, she says: "Last spring, when making out our list of seeds, we sent for a paper of *Petunia hybrida* (choicest mixed, from show flowers), little thinking what a rich treat was in store for us. We sowed them in a pot in the house, and transplanted them to the garden early in the season; and the result was a bed of the finest and largest Petunias I ever saw. They were a constant source of delight to us and the wonder and admiration of all our friends. In September we took cuttings from them, and when they were well rooted put them in three inch pots, in good soil, where they have bloomed all winter as freely as in the summer. I think they do not require much soil, as the roots are very small and fibrous, and the advantage of the small pots is that they will stand on the window-sill of any ordinary country house, thus bringing them near the glass and keeping the earth warm. Some of them we have trained to the window-sash, and a few of them in this way will fill an entire window. If there are any who have not tried the single Petunia for winter blooming, I hope they may be induced to give them a trial, and I am confident their efforts will be repaid by these lively and free bloomers."

"What to Plant"—is often a puzzling question even to the experienced planter. He has tried many things that for some mysterious reason have failed to reward his pains that he looks cautiously at the burdened pages of the seedsmen and is unmoved by their glowing comments, while the novice is bewildered by the innumerable varieties of everything. But there is a way out of the wilderness. In all the catalogues will be found a few sorts of each vegetable printed in larger type than the rest. These are long-tried standard kinds which it is perfectly safe to plant. Let the beginner make his selections from these and he will not go astray. Not because the old planter has been fooled with new varieties ought he to pass them by entirely. There is always a chance of getting something better, and those who first tried the French Breakfast radish, the Little Gem pea, the Trophy tomato or the Minnesota sweet corn, were never sorry. Try a few at a time, and do not expect too much of them, and we venture to say that seldom a season will pass without adding something to your list of tried and true favorites.—*Christian Union.*

How Vines Grow.—An interesting essay respecting vines and climbing plants was recently read by Dr. J. T. Stewart, before the Peoria (Ill.) Scientific Association. He has observed that the morning-glory makes about two circles in climbing per day, the twining portion often sweeping a circle of two feet or more diameter during the process. He finds a total inability on the part of vines to twine around large objects; as, for instance, where one had started by curling around the naked root of a tree, it proved quite unable to clasp the tree itself, though tied fast around it. The tree was only 1½ inches diameter. Vines of some species can twine around larger objects, but their limit in this respect is soon reached. They all prefer supports of small diameter. While a vine is growing it makes the semicircle toward the light twice as fast as away from it, and also makes its circles in search of support more rapidly in the day-time than by night.

Bells for Sheep.—The cheapest and best insurance against dogs killing sheep are bells—plenty of bells. The sheep-dog is a great coward when in pursuit of mischief, and he wants to do it quietly—wants no noise, no alarm. Bells bought at wholesale do not cost much. Buy a side of bridle leather at the currier's, for collars, and put a bell on every sheep, if your flock is small. The price of one sheep will buy a gross of bells and leather enough and buckles to strap them. Put this gross of bells on a flock of sheep, and they will frighten every dog out of the field. Flockmasters are slow to adopt a simple and cheap remedy like this, but will go to the Legislature, hire lobby influence, and spend large sums of money to little purpose. Members of the Legislature are fond of dogs themselves, and do not want them taxed. They own no sheep, and care but little about their protection.—*Southern Farmer.*

Make the Horses Work.—Horses were designed as beasts of burden, to relieve mankind from fatiguing drudgery. It does not hurt them to work hard, if they are treated kindly. It is not the hard drawing and ponderous loads that wear out horses and make them poor, balky and worthless; but it is the hard driving, the worry by rough and inhuman drivers, that uses up more horse flesh, fat and muscle than all the labor a team performs. Consider the ponderous loads that many teams are required to cart every day, and several times a day, and yet they appear to grow fatter and stronger every year. They are treated kindly. On the other hand, other horses, that do not perform half the labor, soon grow poor, and give out, and the next we hear of them they die with the harness on. Hard work does not kill them; but the worrying, fretting and abuse did the job.—*New York Times.*

Wood Ashes with the bits of charcoal in them, and coal ashes too, are excellent for the fattening of pigs. Pigs cannot stuff themselves, week after week, without their stomachs getting out of order, and the bits of charcoal check acidity and regulate them, and help to improve their appetites. We think our pigs cannot get along without the little bits of ashes in one corner of the pen to root over and pick the charcoal out of. It is their dispensary.

White Hellebore (a powder to be obtained at the druggist's) is infallible, for destroying all manner of insects without injuring the plants in the least. It can be put in water and applied through a garden syringe, hose or watering-pot; or put in two or three thicknesses of guaze, the edges of which tie to a long stick, and shake the hellebore under and over the plants when they are wet. Care should be taken not to inhale it, or to get it on the hands, asit causes irritation of the skin.

RAG AND TAG.

BY MRS EDMUND WHITTAKER,

(Author of "Hilda and Hildebrand," "The Return from India," "Little Nellie," &c.)

CHAPTER V.—*Continued.*

"Ah! bless them, that's what I want it to be. The Lord knows that;" and honest John, after warmly wringing his friend's hand, and bidding Rag and Tag "follow close behind him," was soon on his way towards his home.

CHAPTER VI.

The next Thursday a disappointment awaited Rag and Tag. About the time they should have started for Mr. Stubbins' house, the verger himself appeared, to say that owing to his little girl being very poorly that day she was not able to have Rag and Tag at tea; "but," he continued, "knowing how disappointed you would be, little Susan has asked me to take you into some of the nice streets, that you may see how beautiful the shops look, all preparing for Christmas."

This comforted the children very much—indeed it was a greater treat than even the tea would have been. John was busy in the warehouse, but Mrs. Burton gave her free permission, and off they went.

Mr. Stubbins was so kind and amusing, and took them to look at such bright, lovely shops, and gave them such a handsome supply of oranges and cake, that Rag could not believe it was the same tall, grave man in the long black gown who had looked so sternly at her in church.

After a time Mr. Stubbins said he thought they had been out long enough, but that he would, as he was close to his home, "just ask how his little Susie was."

Tag and Rag also felt a curious feeling come over them, as they found themselves once again in the old dreary street where they had passed so many days, and each held Mr Stubbins' hand tighter than before when they discovered themselves just passing their old cellar There was the board as usual resting on the pavement, covered with a few odds and ends, and a few, very few, people were haggling over the different things put for sale. At first they dared hardly look, for fear they should see the "dreadfuls;" but Mr. Stubbins, guessing what was passing in their minds, comforted them with the assurance "that the old ones would never appear on this side London again, or the other either, for the matter of that, as the police had carried them off."

So Rag and Tag looked with curiosity at their old haunt, and their old occupation; also to see who was the seller now instead of themselves.

"It was a thin, tattered wretched-looking girl, if possible more thin and squalid than even they themselves had been; as they passed by on the opposite side, and the straggling gas-lamps shed a ray of light on her upturned, occupied face, Rag and Tag started, and involuntarily screamed—out "Long Nose!"

Yes, it was poor "Long Nose" they saw, and "Long Nose," though they did not know it, saw them.

On reaching Mr. Stubbins' door, it was opened by a woman who, from the great likeness, Rag and Tag had little difficulty in recognising as his sister. Susan had just fallen asleep, so they did not go in; but before they left, the children, out of the supply their friend had given them, drew two oranges each from their pockets; also a pretty little brightly-papered box which Rag, with the two pennies she had so long retained, and with another penny of her own added to it, had bought that evening for the "lill sick gel."

RAG AND TAG VISIT THEIR OLD HOME.

The gift was graciously accepted by the somewhat stern looking lady, and Mr. Stubbins, finding it was growing late, hastened back with his little companions to their home.

It was a great delight to good John and his wife to witness the daily improvement in the children. Tag was getting quite useful in the warehouse, and Rag was a daughter to Mrs. Burton, so gentle and willing, so cleanly, quick and bright, that that good woman felt indeed the Lord was rewarding them for what they had undertaken for Him.

Every evening was spent at the night-school, and Rag and Tag were doing all they could to improve, and to gain the much coveted Bibles promised them by Mr. Hannington.

It was Saturday night, bitterly cold, and Christmas day was on the Saturday following, when Rag and Tag, well muffled up, went out on their way to Mr. Hambledon's night-school. They were allowed to go alone now, John being very much engaged with the Christmas accounts at the warehouse. He, however, generally went about half-past eight to bring them home. As Rag and Tag walked hand-in-hand happily down the street, talking to each other of the happy Christmas they were going to have, of the promised plum-puddings and mince pies which Rag had assisted Mrs. Burton in making—and from the sundry little pieces she had popped into her mouth during their preparations knew almost exactly how good they would taste; also as to the different little presents they were to buy for John and his wife, and for each other, with the six round pennies they had each saved (for I must not forget to tell you that the children being pricked in their consciences, had told John all about the half-crown from the old gentleman, and it had been put into the church poor-box some weeks ago), they were startled by hearing a voice behind them calling out—

"Rag—Tag, stop a bit, will yer?"

On turning round, who should they see but "Long Nose," and she was soon by their side. Very different she looked from the "Long Nose" of other days, whose defiant, mischievous, saucy, teasing ways had often added to the children's discomfort. Pale, drawn, thin, and jaded, and with hollow cough, she looked the shadow of her former self.

"Oh,. I'se glad yer've stopped at last," she exclaimed, breathlessly; "I don't like to beg on yer, but if yer've just a penny in yer pocket, give it me. I'm starvin'."

Almost exhausted, she lent against the wall.

The children looked at her white sunken cheeks and colourless lips, and then at one another.

"She is starving, sure enough," whispered Rag to her brother, in a low voice. "It's just the way I've often seen you look when you had nothing to eat for ever so long; and I've felt as she's feeling too, but I haven't a copper about me. What shall we do?"

"And I haven't either," replied Tag. "see, we are close to the school. I'll run on and ask our clergyman if he'll come."

"No, no!" and "Long Nose" roused herself at once, and spoke in the old sharp way. "Whatever you do, don't be setting people arter me. I'm not like you: no' un will take to me as they have to you. I've seen a deal more badderness than you two have, an' I'd rather just go on managin for myself. I've not stol'd for some time, or anythin' of that sort' else you'd not see me like this."

"I have a a'penny!" suddenly screamed out Rag. "I was going to put it in——"

"Don't mind what you wor agoin' to do with it; get me somethin' to eat out of that there baker's shop or I'll die. I'm fair clamme'd this time, I can tell yer."

Rag, who had rushed off to her bidding, came back in a second with a large piece of bread. The baker, who had followed her to the door to watch what she was going to do with it, seeing how matters stood, went back to an inner part of his shop, and soon came out with a brown paper parcel under his apron full of scraps of bread and meat.

"There, poor girl, eat that, and then go home if you have one;" and the floury looking man turned away quickly, as if half-ashamed of what he had done.

"Long Nose" looked after him, but said nothing.

Rag and Tag stood by her in great delight watching the good the bread and meat were doing.

"Long Nose" ate very sparingly, but seemed much revived.

"I'll put this by"—and she returned a piece into the brown paper parcel; "I may want it still more badly to-morrow. I can stan' a good deal, but when one is werry empty, an' hunger gnaws awful hard, like big teeth bitin' inside, it's uncommon bad to bear. You knows a bit about it little 'uns, don't yer?"

"We did, but not now," answered Rag, gravely; and I wish you didn't either, poor 'Long Nose.'"

"No, that wouldn't do, nohow; you must let us do something for you, 'Long Nose.' Look here, Tag and I have each saved up a sixpence, so that 'ill be a shillin' for you: it's at home—if you'll stay here a bit, just leaning against the wall there, we'll run back and get it for you."

"Little 'uns, you're uncommon good, uncommon; but I'll not take yer shillin', an' I won't stay here, or I shall be ordered off. I'm goin' into the country to-morrer, to get all holly I can for Christmas. What they wants such a lot for I dunno, but it sells well, and I'll turn a penny, I 'opes, that way; so don't be a-thinkin' too much on me, though I'm glad to see so much 'sperity has not gone for to spoil you both You'd better be off to yer school now."

"Don't go for to talk in that way, you stoopid thing"—and "Long Nose" gave her a hard slap on her hand. "What's the good of agoin' an' topsettin' one like that. Get along to yer school, there's good little 'uns, an' leave me a bit."

"No, we won't leave you," said Tag, sturdily. "We were as badly off as you are a short time ago, and our kind Lord has helped us, and led us into a happier life, and we'll not leave you in the lurch, 'Long Nose.' Will we Rag?"

"Why, what do you know about our school?" exclaimed Rag and Tag together.

"Oh," replied "Long Nose," with a knowing look, "I've known about it for some time past. There's scarce been a night lately that I've not been a-listenin' an' a-listenin' to the singin.' I often wishes I could get in an' hear more. One night you'd a'most caught me as you wor a-comin' out with that tall man who takes care on yer;" and "Long Nose," laughed a hollow little laugh at the remembrance of it.

"Look here, 'Long Nose,'"—and Tag was very much in earnest. "We are werry late to-night, an the room will be well filled up, so Rag will have to sit in a corner and won't be much seen. You go in and sit alongside on her, and see and hear all you can; it's only once in a way, and may be your only chance, if you're going off to-morrer to the country"

"My only chance," said "Long Nose," thoughtfully. "Well, that's werry true, for I might find I liked the country better than the town and stay there, and I *should* like to hear the singin' a bit plainer, and what the man who speaks has to say. One night he said somethin' about 'Let him as stol'd, not go an' do it any more.' I couldn't hear much, though I listened as hard as iver I could; but I've niver stol'd any more since that night, an' I'm not agoin' to do it any more either. Then the songs!—there's one about 'Jesus loves me'—I niver 'eard sich pretty 'uns before. I've larnt a small bit of that there 'un—see if this aint it," and "Long Nose," in a shaky low voice, hummed as they went along—

"'Jesus loves me! this I know,
For the Bible tells me so.'

I can't say any more—I couldn't catch hold on the rest."

"It goes on like this," and Rag sang:

"Little ones to Him belong:
They are weak, but He is strong.
Yes, Jesus loves me, Yes Jesus loves me,
Yes, Jesus loves me, The Bible tells me so.'

"That's it," said "Long Nose" "But lor, how you've com'd on, to sing all that there, to that bootiful tune. I say, I think I'll go in an' hear some more; but who is 'Jesus loves me,' an' 'The Bible tells me so?' an' what's all the green holly for, as they puts up everywhere at Christmas-time?"

"Why, we've only known all this quite lately," replied Tag; "and it was all werry confusin' at first, but it's quite plain now. Christmas Day is the birthday of our Lord Jesus, whom you sing of in that hymn."

"What, 'The Jesus loves me'?"

"Yes; and if you come in to-night you'll hear lots and lots more as 'ill make you ever so happy."

"But what's the holly for?"

"To make everythin' look as pretty and bright as it can, because it's His birthday. It's put up in all the churches, where they tell every one about Him."

"Is that what churches is for, to speak about 'Jesus loves me' in them?"

"Yes," answered Rag; "and that's why the holly is put in them at Christmas-time, so that when people like us, who have never been taught nothin', ask what the holly is for, they may say because it's the Lord Jesus' birthday, who died for you."

"Did He do that?" and "Long Nose" looked awe stricken.

"Yes, He did indeed,"—it was Tag who spoke this time. "Everybody was too wicked to go to such a good place as heaven, so the Lord Jesus said He would become first a child, and then a boy, and then a man, just like all of us, and be punished instead of us—for you know about that wicked one, the Devil, who is always fighting against God, and trying to make us bad, that we may go to him instead of to heaven?" "Long Nose" nodded. "Well, our Lord was killed a cruel death instead of us, and now, if we love Him, He will take us to heaven when we die."

"When we die! That may be years an' years yet," answered "Long Nose," thoughtfully. "I'd like to get there at once; you don't know how I've wished to lie down an' die when I heard' you all singin' 'Jesus loves me. Somehow, though I didn't know nothin' of of all this you've been talking about, yet it made me happy like, saying 'Jesus loves me'; an' I thought, when I heard the voice of the man talkin' about 'stealin' no more,' I'll not go an' do anything' o' the sort again, just for fear 'Jesus loves me,' an' it 'ud make Him sorry."

"Here we are," said Rag. "Let's go in at once; come 'Long Nose.'"

"Yes, I'm a-comin', since I've com'd so far. I'm not a-goin' back now," said "Long Nose," in her old defiant voice. Who's afraid?"

But in spite of her voice, "Long Nose" was very shy and nervous, and her poor thin body was quite shaking with agitation. Curiously enough, it was the hymn she so much loved they were singing. Very quietly and timidly she followed Rag into a corner near the door, but nothing would make her stand up as the others did. She sat with her elbows on her knees, and her hands supporting her thin, sad face, with her large hollow eyes looking straight before her.

As if the clergyman knew by intuition there was a poor, hungry, thirsting soul listening to him, he took for his text, "God so loved the world that He gave His only begotten Son, that whosoever believeth in Him should not perish, but have everlasting life." And simply, clearly, and lovingly he told the "old old story" of how "Christ Jesus makes us whole." There was something in the hollow, sunken cheeks of the poor scarce fifteen years-old girl before him which told of a life soon to be ended, and the good man felt he must speak for that one soul entirely. As he spoke of the birth, the life, the death, the love of Christ, and God's infinite and yearning love over sinners, large tears ran slowly down the poor girl's cheeks; but she moved neither hand nor foot, only sat breathless and eager, listening to the most wonderful words that had ever fallen on her ears before.

When the clergyman had finished, another hymn was sung, and then, as the door opened to admit one or two stragglers who were only able to come for the last half-hour devoted to reading and writing, "Long Nose" rose, and whispering in Rag's ear, "I'm off for the holly—I want to make this room look iver so pretty on His birthday," darted through the door, and before Rag or Tag had time to say one word, was far down the street on her way to the wretched cellar where she now lived. On reaching that place she struck a light, and looking in a little old match-box, which she drew from a hole in the wall, she took out all it contained, three pennies, and wrapping them in a piece of paper lying on the damp floor, she crawled out of her den, and going up one or two steps, knocked at the door of the room overhead.

On being desired to enter, she went up to a woman who, seated by a fire, was undressing a baby, preparatory to putting it into its broken cradle.

"Holloa, Lizzie; what are you arter?" was the not altogether unamiable greeting.

I've com'd to pay my week's lodgin'. I'm off tomorrer into the country hollying, and mayn't be back afore Friday, so 'ere's your rent. If you don't get any 'un askin for the cellar whiles I'am away, I'll take it agin.'

"Why Liz, my girl, you're growin' honest, I declare. What's come to you? To tell the truth I thought you'd bolt'd to-night, and never meant to pay the rent at all. Here, take a penny back, as it's Christmas time. I'll be gen'rous for once."

"Yes, I'll take it, an' thank ye. I may want it bad before I gets back. See, will you have this for the babby? I kept it a-purpose for him," and "Long Nose" held out half of a small cake, the remains of some of those the baker had put in the brown paper bag."

"Stol'd?" asked the woman, with a sly smile at the girl.

"No, guv'd," was the equally laconic reply, as "Long Nose" turned towards the door. Just as she was opening it a thought seemed to strike her, and she went back to the woman.

"I say missis, if I guv you a message, will you guv it agin?"

The woman nodded.

"S'posin' any one should come here arter me—a boy an' girl most like—will you say "Long Nose' has gone hollying, an' will meet them on Friday evenin' at the night-school house, to help an' do the deckering."

The woman stared, but before she had time to say a word in reply, "Long Nose" was off.

Mr. Hannington was much disappointed when he found "Long Nose" had vanished, without either he or Mr. Hambledon having had an opportunity of speaking to her. His whole heart and mind was filled with the sad, miserable appearance of the lonely-looking young thing. He questioned Rag and Tag, who told them all theyknew about her, and how she had said she was off to the country to get holly, that she might help to make the room look pretty for her Lord's birthday. So he could only wait and pray that another soul might be saved, and another jewel won for the master's crown.

(To be Continued.)

Of all the people in the world, Christians should be most kindly in their judgments of one another.—*Examiner and Chronicle.*

The green pastures which God has prepared for his people are the same essentially whether surrounded by a Presbyterian fence, or a Methodist fence, or a Baptist fence.—*Independent.*

The Family Circle.

THE TICK OF THE CLOCK AT MIDNIGHT.

Tis the tick of the clock at midnight,
Solemnly, startlingly clear,
Like the throb of a fevered pulsation
Made audible to the ear.
Through the house reigns a death-like silence,
The death—like silence of sleep,
Whilst the fragments of Time, like meteors,
Pass flashing across the deep.
From the coming Eternity rushing,
They illume for a moment our sky,
But no power can stay their departure;
They touch us and hover by.
They touch on the heart of the watcher,
And utter these words in his ear:
"Can ye not watch for one hour"
And our soul-stirring message hear?
We are God's messengers speeding
With swift and invisible flight,
And we speak to you best in the silence
Of the quiet dead-hush of the night.
Remember we carry our message
Of what ye are doing on Earth,
To the Bountiful Father in Heaven,
Who endowed you with souls at your birth,
What are ye doing, Oh mortals!
With that glorious gift of a soul?
For what are your strongest yearnings,
And what is the longed-for goal?
Pleasure, and power, and riches,
Leisure, and freedom from care—
Is it for these you are striving?
Such strivings must end in despair.
Like a butterfly crushed in the grasping,
So pleasure is crushed when caught,
And power must end in weakness,
And Riches must end in nought;
Whilst indolent Leisure lies basking,
Sleepily, selfishly glad,
Till the Adder of Conscience stings it
And the Terror driveth it mad,
Soon the dawn will streak the horizon
And herald the fateful day,
Prepare! Lo, the Kingdom of Heaven
Approacheth! Watch and Pray."

—*Good Words.* W. A. Gibbs.

TAMMY'S PRIZE.

"Awa' wi' ye, Tammy man, awa' wi' ye to the schule, aye standin' haverin', and the old shoemaker looked up through his tear-dimmed spectacles at his son, who was standing with his cap on and his book in his hand.

Tammy made a move to the door. "An' is't the truth, Tammy? and does the maister say't himsel'? Say't ower again."

The boy turned back, and stood looking on the ground.

"It wasna muckle he said, fayther. He just said, "It'll be Tammy Rutherford that'll get the prize i' the cocatin."

"He said you, did he?" said the old man, as if he had heard it for the first time, and not for the hundredth.

Again Tammy made a move for the door, and again the fond father would have called him back, had not the school bell at that instant rung out, loud and clear.

"Ay, ay!" said he to himself, after his son had gone, "a right likely lad, and a credit to his fayther," and he bent again to the shoe he was working at, though he could scarcely see it for the tears that started in his eyes.

The satisfied smile had not worn off his face when the figure of a stout woman appeared at the door. The shoemaker took off his spectacles and wiped them, and then turned to the newcomer—

"A bra' day till ye, Mistress Knicht. An' hoo'll ye be keepin' ?"

"Oh, brawly, Maister Rutherford. It's the sheen I've come aboot for my guidman; the auld anes are sare crackit."

"Aweel, mistress the new anes'll be deen the morn. Set yersel' doon;" and complying with this invitation she sat down. "An' hoo's yeres Sandie gettin' on at the schule, Mistress Knicht?"

"'Deed, noo ye speak on't he's a sare loon; he'll niver look at's lessons."

"He winna be ha'in' ony o' the prizes, I'm thinkin', at that gate."

"Na, na; he'll niver bother his heed aboot them; but he's sayin' yer Tam'll ha'e the countin' prize."

"Ye *dinna* say sae! Weel, that is news;" and he looked up with ill-concealed pride. "The lad was talkin' o't himsel'; but, 'deed, I niver thocht on't. But there's nae sayin'."

"Aweel, guid-day to ye, and I'll look in the morn for the sheen."

"An' are they sayin' Tam'li ha'e a prize?" continued the old man.

"Ay, ayp, the laddie was sayin' sae;" and she went away.

The shoemaker seemed to have fallen on a pleasant train of thought, for he smiled away to himself, and occasionally picked up a boot, which he as soon let drop. Visions of Tammy's future greatness rose in his mind—perhaps of too alight a fabric were they built; but he saw Tammy a great and honored man, and Tammy's father leaning on his son's greatness.

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"Presairve us a' it mair nor half-six" (half-past five), and he started up from his reverie. "Schule'll hae been oot an 'oor, an' the laddie's no hame." And he got up and moved towards the door. The sun was just sinking behind the horizon, and the light was dim in the village street. He put up his hand to his eyes and peered down in the direction of the school.

"What in a' the world's airth's keepin' him," he muttered, and then turning round he stumbled through the darkness of his workshop to the little room behind. He filled an antiquated kettle with water and set it on the fire. Then he went to the cupboard and brought out half a loaf, some cheese, a brown tea-pot, and a mysterious parcel. He placed these on the table, and then gravely and carefully unrolled the little parcel, which turned out to be tea.

"Presairve us, I can niver min' whaur ye put the tea or hoo muckle. It's an awfu' waicht on the min' to make tea."

His wife had died two years before, and his little son, with the assistance of a kindly neighbor, had managed to cook their humble meals. Porridge was their chief fare, but a cup of tea was taken as a luxury every evening.

"I'm jist some fear't about it. I'll waicht till Tammas come in," and he went out again to the door to see what news there was of his son.

The sun had completely disappeared now, and the village would have been quite dark had it not been for the light in the grocer's window a few doors down.

The door of his next neighbor's house was wide open. He looked in and saw a woman standing at the fire, superintending some cooking operation, with her back to him.

"Is yer Jim in, Mistress?"

"Na," she said, without turning her head. "He'll be doon at some o' his plays. He's nae been in frae the schule yet."

"It's the same wi' Tam. Losh! I'm wunnerin' what's keepin' him."

"Keepin' him, say ye, what wad keep a laddie?"

Half-satisfied, the shoemaker went back to his house, and found the kettle singing merrily on the fire. He felt a little anxious. The boy was always home in good time. He crept round again to his neighbor's.

"I'm gettin' feart aboot him," he said, "he's nae niver been sae late's this."

"Hoot, awa' wi' ye, he'll be doon, maybe, at the bathin' wi' the lave, but I'll gang doon the village wi' ye, an' we'll soon fin' the laddie."

She hastily put her bonnet on her head, for the night air was cold, and they both stood together outside the cottage.

He clutched her arm. What was that? Through the still night air, along the dark street, came the sound of muffled feet and hushed voices as of those who bore a burden. With blanched face the old man tried to speak, but he could not. A fearful thought came upon him.

They are coming nearer. They are stopping and crowding together and whispering low. The two listeners crept up to them, and there in the middle of the group lay Tammy dead—drowned.

"With a loud shriek, "Tammy, my Tammy," the old man fell down beside the body of his son.

They carried both in together into the little room, behind the shop, and went out quietly, leaving one of their number who volunteered to stay all night.

The shoemaker soon revived. He sat down on one side of the fire, and the man who watched with him sat on the other. The kettle was soon on the fire, and he watched its steam rising with a half interested indifference. Then at times, he would seem to remember that something had happened, and he would creep to the side of the bed where the body lay, and gaze on the straight, handsome features and the bloodless cheeks, quiet and cold in death. "Tammy, my man; my ain Tammy, speak to me ance—jist ance—I'm awfu' lonesome-like." Then the watcher would lead him quietly to his seat by the fire, and there they sat the whole night long till the stir of the outer world aroused them.

* * * * * * *

The school is filled with happy, pleasant faces. The prize day has come. There stands the minister, looking very important, and the schoolmaster very excited. The prizes are all arranged on a table before the minister, and the forms for the prize-winners are before the table. And now everything is ready. The minister begins by telling the parents present how he has examined the school and found the children quite up to the mark; and then he addresses a few words to the children, winding up his remarks by telling them how at school he had thought that "multiplication is a vexation," &c., but now he found the use of it. And then the children laughed, for they heard the same speech every year, but it made the excitement greater when they had the prizes to look at, as they shone on the table in their gorgeous gilding, during the speech. And now the schoolmaster is going to read out the prize-winners, and the children are almost breathless with excitement—you might have heard a pin drop—when, from the end of the room, a figure totters forward, the figure of an old man, white-headed, and with a strange glassy look in his eye. He advances to where the children are sitting, and takes his place amongst them. Every one looks compassionately towards him, and women are drying their eyes with their aprons. The schoolmaster hesitates a moment, and then looks at the minister. The minister nods to him, and he begins the list. It is with almost a saddened look the children come to take their prizes, for they think of the sharp, bright, active playmate who was so lately with them, and they gaze timidly towards his father, who sits in their midst.

"Thomas Rutherford," reads out the master, "gained the prize for arithmetic."

"I'll tak' Tam's prize for him. The laddie's as weel. He's awa'. I'll take it;" and the shoemaker moved hastily up to the table.

The minister handed him the book, and silently taking it, he made his way to the door.

* * * * *

A quiet old man moves listlessly about the village. He does nothing, but every one has a kind word for him. He never walks towards the river, but shudders when its name is mentioned. He sits in his workshop often, and looks up expectantly when he hears the joyous shout of the boys as they come out of school, and then a look of pain flits across his face. He has one treasure—a book, which he keeps along with his family Bible, and he is never tired of reading through his blurred spectacles the words on the first page—

BARNES SCHOOL.
FIRST CLASS.
PRIZE FOR ARITHMETIC
AWARDED TO
THOMAS RUTHERFORD.

—*Henry W. Thompson, in the Christian World.*

DIFFICULTIES OF MISSIONARIES IN CHINA.

Robert Morrison, the first Protestant missionary to China, landed at Canton in 1807. He belonged to the sect of the Independents, and was sent out by the London Missionary Society, then thirteen years old. Morrison studied in England before he started, and procured from the British Museum a 'Harmony of the Gospels' and the 'Pauline Epistles,' which, with an unknown Roman Catholic missionary. These books and a manuscript Latin and Chinese Dictionary formed his literary equipment for his great task. An impress of sterling truth marks the works and the character of the pioneer of evangelical religion in the Middle Kingdom. The narrative of his labors is a plain home-spun story, showing a gigantic aptitude for hard work, strong north-country common-sense, and, underlying all the rest, an unshaken confidence in the support which spiritual religion offers to its children.

Robert Morrison was born in 1782. He embarked for China in 1807 to found an Anglo-Chinese College. From the day when, to quote his words, "the good hand of God brought him" to the place of his appointed labor, until the day when his body was buried beneath the willow trees at Macao, he lived like a hermit and worked like a horse to get at the heart of those two mysteries, the Chinese language and the Chinese mind. We get glimpses of him toiling by the light of his earthenware lamp, with a folio volume of Matthew Henry's Commentary set on its edge to prevent the wind from blowing out the flickering flame. At one time his type-cutters are seized by the Chinese and his work delayed by the loss of the blocks; at another the Romish priests forbid any of their converts to help him in learning the language. But steadily, with patience that was never exhausted, and a temper which was never exasperated, this son of a Northumbrian farmer worked at his gigantic task and completed his dictionary. He was assisted by an able coadjutor in Dr. Milne, who however died before his predecessor, and the two produced the first version of the Bible ever made by Protestants into Chinese. Twenty-six books of the Old Testament and thirteen books of the New were wholly the work of Morrison, though as he always stated with characteristic candor, the Chinese MS. in the British Museum, a copy which he procured under the Missionary Society's care, was the foundation of the New Testament in Chinese which he completed and edited.

The first problem which presented itself to Morrison was the discovery of a term for God. To quote his own words:—

"I have put down in my Diary for this day that I was perplexed, not knowing what words to make use of, to express to the Chinese, with whom I conversed, the Supreme Being; whether to adopt the Tseenchoo of the [Romish] missionary, or to make use of words which are commonly understood by the heathen to denote spiritual and superior beings, or their gods, which are many. I do not now feel on that head any difficulty. I make use of both modes of expression; but give the preference to their own, viz., Shin, which is the most generally understood. When I make use of other names they imagine that I bring to them another God—the God of my country. From this notion, which is perfectly in unison with all heathen ideas of gods, I keep as far distant as possible. I do not bring to them another God, but endeavor to convince them that their ideas of Shin are erroneous; that there are not many gods, but one, and He is the same to every nation under heaven. I even let them retain the word Teen (heaven), but engraft upon it proper ideas as we do in our own language. Those who know anything of religion have lost the heathen idea of heaven, and mean by it the God who reigns in glory there. It is a matter of small importance to give to the heathen new words in comparison to the right giving of right ideas of things. It appears to me that the Roman missionaries have made much noise about forcing the Chinese to receive the word Teenchoo (the Lord of Heaven, which, by the way, is a good expression); but then they have brought to them at the same time numberless objects of worship, saints and martyrs perfectly of a piece with their old heathen ideas."

It will be seen from this passage that the first Protestant missionary adopted the word *Shin* in his version of the Holy Scriptures, and we know that in the last prayer that he composed he used that word and none other in addressing the Supreme Being!

Dr. Medhurst, the second of the Protestant Missionary sinologues, adopted Shangti. Abel Rémusat, a sinologue of exceptional abilities, could not tolerate the use of *Shin*. Later, a compromise has been arrived at in Peking, and certain Protestants agree to adopt Teenchoo, the term in use amongst the Roman Catholics, but in the south of China, one missionary uses one term, another another, and some all three!

The contest still continues, and we frankly acknowledge the results are most disastrous. It is above all things necessary that, in China, the Christian missionaries should, as far as in them lies, forget or conceal their differences, and present an unbroken front to the heathen. Unhappily this dispute about the character to be used for God, prevents them from even assuming the virtue of unity. It is not a question of things indifferent on which the Church is at issue, it is a root question and one that concerns the essentials of religion. The man who preaches the *Shin* 'JEHOVAH' preaches a different God from the man who preaches the *Shin* 'SHANG-TI.' The two not speaking out of body when we say this difference causes many earnest missionaries poignant grief, and increases the difficulty of their work among the natives to an appreciable extent.—*Edinburgh Review.*

GIVING A PARTY.

To get into my first subject I will begin by asking, what is your object in giving a "party," or "entertainment," or in any wise asking people to meet under your roof? There must be a why and a wherefore in this as well as in any thing else. The first object methinks must be to give and get some form of innocent pleasure. You wish your friends to feel at their ease and enjoy themselves. Now this purpose is almost sure to be frustrated if the giving of the entertainment put any marked strain upon the resources of your purse and household. I do not mean that people should take no trouble to entertain their guests, but this trouble should be taken well beforehand, and not allowed to be conspicious at the time. A host can never show agreeable hospitality if he fusses over its exercise. If he is secretly conscious of a special effort to entertain he cannot feel any real ease himself, and thus cannot create the sense of it in his friends. Let him attempt nothing which is not easily within the ordinary resources of his establishment. Do not let him, *e.g.*, provide such dishes as he never sets before the members of his own family, or his cook is not accustomed to produce. Neglect of this precaution has spoiled endless would be entertainments. The machinery of the household is put out of gear just when it should work most smoothly. A sense of strangeness is shed upon it at the very time when it should be most companionable. The importation of unaccustomed viands from

the confectioner and elsewhere, the uncertainty accompanying the arrival, quality, and distribution of these, is likely to keep the giver of the feast in a fidget which is not allayed by the prominent and questionable officiousnes of extra hired attendants in the guest-chamber and the kitchen. Of course, occasions may arise in which some supplementary, assistance is desirable, but it should be strictly supplementary, and bear but a small proportion to the waiting and cooking powers of the household. People are in truth never expected or wished by their friends to put themselves to such a strain as is involved in the case which I have indicated.

The charm of home hospitality is thus dissipated. The host does not offer the welcome of his house, but of an imported inn, which does not fit his belongings.

As akin to this radical failure to entertain we may reckon "company manners." It is enough to say that these carry their own condemnation along with them. If the givers of a "party" cannot exhibit, in talking with their guests, the same ease as they feel in conversing among themselves, there is some fundamental defect in its construction. They had better leave the whole thing alone, and pretend to give no entertainment whatever. When people ask friends to their house they should give the best of what they are used to, and no more. They should dress as they are not unaccustomed to dress when alone. They should make no effort to entertain, but talk just as they talk among themselves. They should never invite more than their table will comfortably hold, for want of elbow-room is fatal to sociability. They should never put such ornaments on their board as it does not commonly bear, though, *e.g.*, on a somewhat larger table there will be more flowers than on a small one. They will be strictly "at home" in the true sense of the word. There will be nothing about the room or its equipment to suggest an effort, or radical departure from daily routine. Then, they and their guests will keep their natural humour, not being any wise put out. All will feel at ease and pleasant conversation will accompany whatever wholesome but unpretentious fare is known to characterise the household.

These, I am sure, are some of the principles of entertainment agreeable to practical social science, and many a family which now plagues it self to give a "party" might be relieved by conducting the whole business more simply, and be almost surprised to find how agreeable this exercise of moral courage became to their friends and to themselves. There is nothing which many need more resent than that phase of the slavery of civilization which too often prevails in the matter of social entertainment. The science of the thing lies in the clear perception of the object to be gained. The very nature of this, which requires the subtle presence of the sense of ease, prohibits anything in the shape of an effort, however well intentioned, which often leads only to a petty rivalry in small display. Have your friends to see you, but don't treat them as if they were strangers. And when any must need come or be invited, who are comparatively strangers, dissipate the sense of strangeness by receiving them as friends. It is really the greatest compliment and respect that you can pay to them, if you have them at all. It indicates a degraded phase of sociability if any come or are invited chiefly for the sake of eating specially toothsome viands.

Through the fare is by no means an unimportant forture of the entertainment, it should supplement the "feast of reason and the flow of soul," and not demand the chief attention of the guests.

A judicious mixture of guests is of first importance. Such as are fortunate in knowing people of divers professions, should study to bring those together who are accustomed to look at the facts of life from different points of view. The science of sociability demands that there should be some variety in the subjects of conversation around the table, as well as in the dishes upon it; and this is obtained by a judicious mixture of guests and their arrangement in the social board. The pains taken beforehand by a host or hostess in these respects are almost always repaid by the obvious pleasure of those whom they would entertain. In considering the furtherance of conversation at a well-assorted party there is, moreover much to be said for the carving of dishes at a sidetable, when they are well carved and served. A large party is not only best so supplied with a choice and sufficiency of the fare provided, but the giver is at liberty to assist in the intellectual as well as material entertainment of his friends. A small one, however, may thus lose that not unpleasant sense of hospitality which comes from the cheery invitation to partake of this or that by he host.

A mistake—I beg my fair readers' pardon—comes from the unconscious persuasion that a feast must needs be supplemented by song. Thus when the party is perhaps broken into several groups engaged in pleasant chat, all is abruptly hushed by the approach of a young lady to the piano. Here and there one seasoned man goes on with his sentence or story till the voice proclaims that is a "song" and not a "piece" with which the company is to be entertained. The song is sung; a little murmur of relief is accepted as a tribute of praise by the performer, and people begin to enjoy themselves again. If a girl can really sing well, she may at a judicious moment interpose a song and gratify the assemblage; but occasionally she cannot sing well, and perhaps injudiciously begins her performance when conversation is in full buzz. I am almost tempt to respect the hardened sinners who will talk when the conventional song proclaims, after a few bars, that is not of that sort which agreeably surprises the audience, or promises to creep into the heart by the ear. And even those might be pardoned who feel scant pity for the young lady who is left to sing it to herself and to two or three who chance to be sitting by the instrument and pose themselves in an attitude of polite attention till the thing is over. She may have taken lessons from the singing-master, but the want of general appreciation is not without being a useful "lesson in music" of another sort.—*Rev. Harry Jones in Leisure Hour (Abridged.*

MAKE HOME HAPPY.

BY MARY A. CARPENTER.

Amusement and recreation are just as essential to health and happiness as labor. I once heard a man say, (because his boys were acting in what he called a silly manner after they went to bed), "I wish I could work those boys so hard that they would be glad to go to bed and behave themselves." Such a wish as that was very wrong. A boy should not be worked so hard that he would crawl to bed in silence, like an old tired horse to his stable. Let boys laugh; it does them good; the old mistaken plan of teaching children to conceal all their mirthfulness has passed away, for the wise among us declare that a desire for recreation is perfectly right and proper. I shall ver forget being reproved by my mother for being too mirthful in the presence of a ministerial friend of ours; nor how exultant and joyous I felt, when he said, "Let her laugh, it is conducive to health, and I like to see young people full of fun; if they are not allowed to be merry when children, they are very likely to be dull and misanthropic when old."

Bring up children in habits of industry by all means, but do not make their tasks so great that there shall be no chance for play, when they get through. Let them have their quoits, ball, kite, and swing their jumping pole, gymnastics, or anything else they see fit to amuse themselves with that has no harm in it. But, I hear some farmer say, "I can give my boys exercise enough on the farm, without any of these things." If you do, you give them too much. They will become tired of life, sick of hard work, discontented with their lot, and wonder what is the use of living; nothing but work the year in and the year out, has led many to wish they had never been born. When the long winter evenings come, the farmers' boys in the country have very little chance for amusement, and it is the duty of their parents to try and make those evenings pleasant if they would have their boys stay at home, Instead of doing as many do, take a book, or paper, and sit and read all the evening, expecting the children to be perfectly still, or go to bed, in short, make all the rest of the family miserable, devote a part of the evening at least to making your children happy, playing games with them, telling them stories of your childhood, or anything else you please. Make yourself a child again, and interest yourself in all their plans and pursuits. I am the mother seven boys, and am over fifty years old, but I am not too old to play with my children, and enjoy it too. It makes me feel young again.—*The Household.*

LEGACIES.

BY M. A. S.

In these days of business tribulation, in the midst of the distress occasioned by sudden failures, foreclosed mortgages, inability to pay or collect interest, one cannot but be impressed with the extremely uncertain tenure with which we hold property, and with the difficulty, if not impossibility, of securing it to those we love who are to come after us. Earnestly do we desire to shield our children from trials and deprivations; gladly would we make any sacrifices during our lifetime to make their path less rough. Perhaps we even go farther, and deny them the gratifications and pleasures which we might give them, in order to leave them better provided for when we shall no longer be able to care for them. We die, and leave them, as we think, comfortably provided for. Unexpected difficulties arise. Our last will may be carried out to the letter. Real estate shrinks. Trust companies fail, stock depreciates, and the fruit of our life-work is swept away.

"Well," some of us exclaim "all this is very true, but personally it is a subject that interests me but little; I have all that I can do to support my family now, and I am very sure I have nothing to leave them." In fact, it is because I was thinking this way that this article came to be written. Then I thought, Is this true? Is there one of us who does not leave a legacy to his children? With all due reference to the constitution, "all men are not born equal."

Take two boys who have to make their own way in life, and leaving out the matter of health, and a good constitution, for which we parents are largely responsible, look now different and how *far* from equal their chances of success are, though both start on the same basis, without a dollar. One has been trained to regular habits of industry—to do well and thoroughly whatever he does; to do, and to expect to do, his part in the world's work. He is taught by precept and example to expect discouragements, and cheeerfully to rise above them, and that, under God, his success depends on willing hands and a cheerful spirit. The other is allowed to work spasmodically, if at all; neglected duties are overlooked, and deficiencies made up by over-indulgent parents or sisters. If disappointed in his plans, he is unduly pitied and circumstances severely blamed. Do these boys start on their life-work with equal advantages, and is not their succes or failure due in a great measure to the legacy that was left them?

I have been much interested lately in a man who has within the last year, in common with many others, lost all his property, and found himself, with a family to support, obliged to start anew. Discouragements have met him at every step; but there has been no sitting down to brood over troubles, but with a cheerfulness and hopefulness that was inspiriting to all around, he has begun again, and there is but one opinion as to his ultimate success. This resolution and cheerfulness and hopefulness were his legacy from his mother, who, amid all the trials and privations of a Home Missionary life in the far West, set an example of both which her children can never forget. "She being dead yet speaketh."

So, in thinking over this matter, I found that I had been hasty in feeling that I had no interest or responsibility in this matter of legacies, on the plea of having nothing to bequeath; and I realized that good home training, good principles, steady purpose, and a cheerful spirit, enforced by example, might be a more valuable and lasting possession than the "riches that take to themselves wings."—*Illustrated Christian Weekly.*

SORRY IS NOT ENOUGH.

"Allan! Where is Allan?

A moment ago he was playing with his little cart in the yard, hauling dirt to the currant-bushes. I can not tell how many cartfuls he carried. He was busy as a little man. But Allan is gone. Where is his cart?

"Allan! Allan!"

"I'se here!" at last said a voice from the back parlor.

"What are you there for?" asked his mother, opening the door and looking in.

Allan did not answer at first. He was standing in the corner, with a pretty sober look on.

"Come out to your little cart," said his mother; "it is waiting for another run."

"I'se not been here long 'nuff," said the little boy.

"What are you here for at all?" asked his mother.

"I punishing my own self. I picked some green currants, and they went into my mouth," said Allan.

"Oh, when mother told you not to? Green currants will make my little boy sick," said his mother, in a sorry tone.

"You needn't punish me," said Allan; "I punish myself."

His mother often put him in the back parlor alone when he had been a naughty boy, and, you see, he took the same way with himself.

"Are you not sorry for disobeying your mother?" she asked Allan.

"I sorry, but sorry is not 'nuff. I stay here a good while and have thinks.—*S. S. Advocate.*

A PENNY AND A PRAYER TOO.

"Was that your penny on the table, Susie?" asked grandma as the children came in from Sunday-school. "I saw it after you went and I was afraid you had forgotten it."

"Oh, no, grandma, mine went into the box all safely."

"Did you drop anything in with it?" asked grandma.

"Why, no, ma'am," said Susie, looking surprised. "I hadn't anything to put in. You know I earn my penny every week by getting up early and going for the milk."

"Yes, I remember, dear. Do you know just what becomes of our penny?"

"No, ma'am."

"Do you care?"

"Oh, indeed I do, a great deal. I want it to do good somewhere."

"Well, then, every Sunday when you drop your penny in, why don't you drop a prayer in too, that your penny may be blessed in its work and do good service for God? Don't you think if every penny carried a prayer with it, the money the school sends away would do wonderful work? Just think of the prayers that would go out, some across the ocean, some away off among the Indians."

"I never thought of that, grandma. The prayer would do as much good as the penny, if it was a real true prayer, wouldn't it? I'm going to remember and not let my penny go alone again."—*Child's Paper.*

BIBLE QUESTIONS.

37. Give the occasion on which man first exercised the power of speech.
38. What was the occasion of the first voluntary fast recorded in the Bible?
39. Who was the first president appointed in sacred history and by whom was he appointed?
40. When was the use of flesh as food first allowed to man?
41. What is the first recorded account of female government?
42. Which of the tribes of Israel marched first in their journeyings through the wilderness?
43. What was the first miracle performed by Christ?
44. Where are the wicked first spoken of as sinners in the Bible?
45. Who first took an oath or affidavit?
46. Where is mention first made of a library?
47. Give the first Scripture reference made to God as a king?
48. What was the first prayer for a king?

SCRIPTURE ENIGMA.

My *first* is oft prefixed to words,
And signifies "beneath,"

My *second's* blessing is the Lord's,
To save from sin and death,
And planted oft on heathen soil,
It well repays the gracious toil.

When patient Job prepared his soul
To bow beneath the rod,
Without reserve he gave my *whole*
To meet the will of God.

ANSWERS TO BIBLE QUESTIONS OF APRIL 15TH.

13. Abraham.
14. Nimrod.
15. Noah.
16. Stephen.
17. Pharaoh.
18. Ishmael.
19. Hagar in the wilderness.
20. The song of Moses.
21. Jacob.
22. Rachel.
23. Jewellery.
24. Jacob at the grave of Rachel.

ANSWER TO ENIGMA.

J-oshu-a.
E-kra-n.
R-eb-a
E-gyp-t
M-ephibosheth-h.
I-dd-o
A-n-t.
H-arma-h.
Jeremiah—Anathoth.

Some of the answers to the Questions in the April 1st number did not arrive in time for the last publication, but we give names now. John F. Millen, Cottam, O., 8; Mary Bell Duncan, Little Shemoque, N. B., 8; Alexander Fraser, Bridgevillo, N. S., 10; David J. Dyson, Kintail, Ont., 8; Erwin L. Whitney, Hartford, Conn., 12; James Rose, Black Heath, Ont., 9; Francis Hooker, Ormstown, Que., 8; T. A. Hay, Hampton Village, N. B., 8; Lizzie Emerson, 10; Harry E. Gowan, Kingsey, Que., 11; N. S. Mc Eachern, North Keppel, Ont., 1; William P. Pratt, Peterborough, Ont., 7; Clara Nurse, Montreal, 9; Sophia M. Lamont, Douglastown, N. B., 8; Kate Vance, Ingersoll, Ont., 6; Edgar Kinsinan, Kirkton, Ont., 1; Anne Donaldson, Ormstowr, Que., 8.

The following are the names of those from whom we have received answers to the questions of April 15th, and the number of correct answers given by each.—William P. Pratt, Peterboro, Ont., 7; Sophia M. Lamont, Douglastown, N. B., 9; Mitchell Fulton, Wallace, N. S., 8; N. S. McEachern, North Keppel, Ont., 1; Edgar Kinsinan, Kirkton, Ont., 1; Annie Donaldson, Ormstown, Que., 8; Francis Hooker, Ormstown, Que., 8; Dora Cumings, Brooklyn, N. Y., 8.

Rest in the Lord, and wait patiently for Him.

PSA. 37: 7.

SCHOLARS' NOTES.

(From the "Little Pilgrim Question Book," by Mrs. W. Barrows. Congregational Publishing Society, Boston.)

LESSON VIII.—May 26.

THE FIERY FURNACE.—Dan. iii. 21-27.

21. Then these men were bound in their coats, their hosen and their hats, and their other garments, and were cast into the midst of the burning fiery furnace.

22. Therefore because the king's commandment was urgent, and the furnace exceeding hot, the flame of the fire slew those men that took up Shadrach, Meshach, and Abednego.

23. And these three men, Shadrach, Meshach, and Abednego, fell down bound into the midst of the burning fiery furnace.

24. Then Nebuchadnezzar the king was astonied, and rose up in haste, and spake, and said unto his counsellors, Did not we cast three men bound into the midst of the fire? They answered and said unto the king, True, O king.

25. He answered and said, Lo, I see four men loose, walking in the midst of the fire, and they have no hurt; and the form of the fourth is like the Son of God.

26. Then Nebuchadnezzar came near to the mouth of the burning fiery furnace and spake, and said, Shadrach, Meshach, and Abednego, ye servants of the most high God, come forth, and come hither. Then Shadrach, Meshach, and Abednego came forth out of the midst of the fire.

27. And the princes, governors, and captains, and the king's counsellors, being gathered together, saw these men, upon whose bodies the fire had no power, nor was a hair of their head singed, neither were their coats changed, nor the smell of fire had passed on them.

GOLDEN TEXT.—"Our God whom we serve is able to deliver us from the burning fiery furnace."—Ver. 17.

1. By whose power and help did Daniel tell Nebuchadnezzar's dream?

ANS. By the help and power of God.

2. Did the king see that the God of Daniel was more powerful than his gods?

ANS. He said he did, but his actions afterward showed that he did not.

3. What did he do afterward?

ANS. He set up a great image of gold, and commanded everybody to fall down and worship it.

4. At what times were they to worship it?

ANS. Whenever they should hear the sound of all kinds of musical instruments.

5. If King Nebuchadnezzar had believed in the true God, would he have ever set up such an image?

ANS. Certainly not.

6. Why he did do it?

ANS. To show his power and his riches.

7. If any refused to worship the image of gold, what was to be done with them?

ANS. They were to be cast into a burning fiery furnace?

8. Who were found that did not obey the king's command?

ANS. Daniel's three friends, Shadrach, Meshach, and Abednego.

9. Why would they not worship the image?

ANS. Because they knew it to be a great sin to worship any but God.

10. Were they not afraid of being burned to death?

ANS. They were more afraid of disobeying God.

11. What did they tell the king? Golden Text.

12. Were they sure God would deliver them?

ANS. They were sure he was able: they were not sure he would think it best.

13. What had they decided to do?

ANS. To do right, and trust God.

14. Are you ever tempted to do wrong?

15. Could you be as brave in doing right as these three friends of Daniel?

16. How was the king affected by what they said?

ANS. He was very angry, and commanded the furnace to be heated seven times more than usual, and said they must be thrown in.

17. How were they put in? Ver. 21.

18. What showed how very hot the furnace was? Ver. 22.

19. What would you suppose would be the fate of Shadrach, Meshach, and Abednego?

ANS. That they would be instantly burnt up by the fierce flames.

20. Instead of that, how was the king astonished? Vers. 24, 25.

21. Do you think the Lord was with them in the fire, to take care of them?

22. What did the king say to them? Ver. 26.

23. What do you specially notice in his words?

ANS. That he calls them "servants of the most high God."

24. When they came out of the midst of the fire, what did everybody see? Ver. 27.

25. Why did God save his servants in this wonderful manner?

ANS. To show a heathen king and people his power and his goodness.

26. What did Nebuchadnezzar say?

ANS. "Blessed be the God of Shadrach, Meshach, and Abednego."

27. What law did he make?

ANS. That, if any one should speak against this great God, he should be cut in pieces.

28. Is there any way in which we may imitate these three holy men?

29. What is it always safe to do?

ANS. To do right.

Command and promise for me:

"TRUST YE IN THE LORD FOREVER: FOR IN THE LORD JEHOVAH IS EVERLASTING STRENGTH.

LESSON IX.—June 2.

THE HANDWRITING ON THE WALL.—Dan. v 22-31.

22. And thou his son, O Belshazzar, hast not humbled thine heart, though thou knewest all this;

24. But hast lifted up thyself against the Lord of heaven; and they have brought the vessels of his house before thee, and thou, and thy lords, thy wives and thy concubines, have drunk wine in them; and thou hast praised the gods of silver, and gold, of brass, iron, wood, and stone, which see not, nor hear, nor know: and the God in whose hand thy breath is, and whose are all thy ways, hast thou not glorified:

24. Then was the part of the hand sent from him; and this writing was written.

25 And this is the writing that was written, MENE, MENE, TEKEL, UPHARSIN.

26. This is the interpretation of the thing: MENE; God hath numbered thy kingdom, and finished it.

27. TEKEL: Thou art weighed in the balances, and art found wanting.

28. PERES; Thy kingdom is divided, and given to the Medes and Persians.

29 Then commanded Belshazzar, and they clothed Daniel with scarlet, and put a chain of gold about his neck, and made a proclamation concerning him, that he should be the third ruler in the kingdom.

30. In that night was Belshazzar the king of the Chaldeans slain.

31. And Darius the Median took the kingdom, being about threescore and two years old.

GOLDEN TEXT.—"Thou art weighed in the balances and art found wanting."—Ver. 27.

1. Where was Daniel at the time the golden image was set up?

ANS. The Bible does not tell us, but probably he was somewhere in Babylon.

2. Did he worship the image?

ANS. Never.

3. Why do you think so?

ANS. Because he was the servant of the true God.

4. Why was he not put in the furnace with the others?

ANS. Probably because he was such a great man, and in such favor with the king.

5. When do we next hear of him?

ANS. A long time afterward, when Nebuchadnezzar was dead and his grandson Belshazzar was king.

6. What can you tell about Belshazzar's feast?

ANS. He made a great feast for a thousand of his lords, and drank wine with them.

7. From what vessels did he and his wives and his friends drink wine?

ANS. From the golden vessels which had been brought from the house of the Lord at Jerusalem.

8. Why was this a very wicked act?

ANS. Because Belshazzar knew these were sacred vessels, to be used only in the service of the Lord.

9. What other very wicked thing was done while they were drinking?

ANS. They praised the gods of gold and of silver, of brass, of iron, of wood, and of stone.

10. In the midst of their feast, what happened that frightened them?

ANS. There appeared a man's hand writing something on the wall of the palace.

11. Did the writing remain so that they could all see it?

ANS. Yes, but no one understood it.

12. Who were called to explain it?

ANS. All the wise men of Babylon; but they could not tell what it meant.

13. Why did they not send for Daniel?

ANS. Belshazzar had never heard of him, or else had forgotten him.

14. Who remembered him at last, and wished to have him called?

ANS. The king's mother.

15. When Daniel came, what did the king tell him?

ANS. That if he would explain the writing he should have great rewards.

16. How did Daniel reprove Belshazzar? Vers. 22, 23.

17. What was the writing? Ver. 25.

18. If it had been written in our language, how should we have read it?

ANS. Numbered, numbered, weighed and divided.

19. How did Daniel know what it meant?

ANS. The Lord told him.

20. How did he explain the first word? Ver. 26.

21. Why does he say nothing about the second?

ANS. Because it is the same as the first, and only repeated to make it emphatic.

22. How does he explain the word Tekel? Ver. 27.

23. In what was Belshazzar found wanting, or lacking?

ANS. In every thing that was good.

24. How did Daniel explain the next word, Peres? Vers. 28.

25. Do you find the word Peres in ver. 25.

ANS. No, but Peres means the same as Upharsin.

26. When Daniel had finished the explanation, did Belshazzar give him the reward? Ver. 29.

27. How did Belshazzar like the explanation?

ANS. He had not much time to think whether he liked it or not.

28. Why? Vers. 30, 31.

29. When God weighs us in balances, what will he find?

Let us remember this week,

"THE LORD SEETH NOT AS MAN SEETH."

LESSON X.—June 9.

DANIEL IN THE LIONS' DEN.—Dan. vi. 14-23.

14. Then the king, when he heard these words, was sore displeased with himself, and set his heart on Daniel to deliver him: and he labor'd till the going down of the sun to deliver him.

15. Then these men assembled unto the king, and said unto the king, Know, O king, that the law of the Medes and Persians is, That no decree nor statute which the king establisheth may be changed.

16. Then the king commanded, and they brought Daniel, and cast him into the den of lions. Now the king spake and said unto Daniel, Thy God whom thou servest continually, he will deliver thee.

17. And a stone was brought, and laid upon the mouth of the den; and the king sealed it with his own signet, and with the signet of his lords; that the purpose might not be changed concerning Daniel.

18. Then the king went to his palace, and passed the night fasting; neither were instruments of musick brought before him: and his sleep went from him.

19. Then the king arose very early in the morning, and went in haste unto the den of lions.

20. And when he came to the den, he cried with a lamentable voice unto Daniel: and the king spake and said to Daniel, O Daniel, servant of the living God, is thy God, whom thou servest continually, able to deliver thee from the lions?

21. Then said Daniel unto the king, O king, live forever.

22. My God hath sent his angel, and hath shut the lions' mouths, that they have not hurt me: forasmuch as before him innocency was found in me: and also before thee, O king, have I done no hurt.

23. Then was the king exceeding glad for him, and commanded that they should take Daniel up out of the den. So Daniel was taken up out of the den, and no manner of hurt was found upon him, because he believed in his God.

GOLDEN TEXT.—"My God hath sent his angel, and hath shut the lions' mouths, that they have not hurt me."—Ver. 22.

1. After Belshazzar was slain who was king of Babylon?

ANS. Darius the Mede.

2. Whom did he take to be first president of the kingdom?

ANS. Daniel.

3. How did he know that Daniel would make a good president?

ANS. He probably heard a great deal about Daniel's wisdom, and the more he saw of him the better he liked him.

4. How did the captains and governors and princes feel towards Daniel.

ANS. They were very envious and jealous of him.

5. Why did they watch him closely?

ANS. To find something wrong in him of which to tell the king.

6. Could they find anything to complain of?

ANS. Nothing; he was so faithful that there was no error or fault found in him.

7. What did they then plan to do?

ANS. To get him into trouble on account of his religion.

8. What decree or law did they get the king to make?

ANS. That no one should offer a prayer to any god or man except the king for thirty days.

9. If any one should break this law, what would be the punishment?

ANS. He was to be thrown into a den of lions.

10. What did these people know?

ANS. That Daniel prayed to God three times a day; and they felt sure he would continue to do it.

11. Did the king know why they wanted such a law?

ANS. No; he did not think of that, but only of the honor he would receive.

12. Did Daniel understand why such a law was made?

ANS. He did; and he knew the terrible punishment that would come if he did not stop praying.

13. What would you have done if you had been in Daniel's place?

14. What did he do?

ANS. He kneeled down in his chamber, with his windows open, and prayed three times a day, just as he always had done.

15. How did the king feel when they told him of it? Ver. 14.

16. Why could he not save Daniel from the lions? Ver. 15.

17. When he found that the law must be kept, what did he say to Daniel? Ver. 16.

18. How did they make it sure that he could not get out? Ver. 17.

19. Do you suppose Daniel was afraid when shut in with the lions?

20. Could the king sleep that night? Ver. 18.

21. What did he do early in the morning? Vers. 19, 20.

22. Was Daniel alive? Vers. 21, 22.

23. Had he been hurt at all? Ver. 23.

24. What was done with his enemies?

ANS. They were thrown into the den of lions, and destroyed instantly.

25. What good was done by this trial of Daniel?

ANS. The king believed in the Lord God, and made a law that all his people should fear him.

26. What do you admire in Daniel?

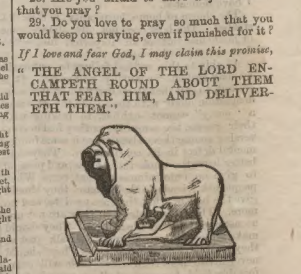
27. How can you be like him?

28. Are you afraid to have any one know that you pray?

29. Do you love to pray so much that you would keep on praying, even if punished for it?

If I love and fear God, I may claim this promise,

"THE ANGEL OF THE LORD ENCAMPETH ROUND ABOUT THEM THAT FEAR HIM, AND DELIVERETH THEM."



SCULPTURED LION OVER A PROSTRATE MAN; Discovered in the ruins of Babylon by Rich,

SUNDAY SCHOOL READERS AND SCHOLARS will find that in this number the Sunday School Lessons are considerably ahead of time, and that a change has also been made in them. The new lessons are much simpler than the old ones and being shorter, we have been enabled to print the verses of the lesson as had often been desired. We hope that these changes will recommend themselves to our readers and to receive their assistance in making the MESSENGER even better known than at present.

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THIS MAGAZINE (THE NEW DOMINION MONTHLY) is rapidly growing in favor with the public. Its articles are well written, and their tone such as to make *the Monthly* a welcome visitor in the family circle.—*The News*, L'Orignal.

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